



## SEQUENCE LISTING

<110> Nippon Institute for Biological Science

<120> novel plasmid vector

<130> PCTF0001-0

<140> 09/762,568

<141> 2001-02-06

<150> JP, Japanese Patent

<151> 1999-06-04

<160> 13

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed PCR primer including 3' region of U3 and VspI restriction enzyme site to multiply RSV LTR.

<400> 1

ggcattaaatg tagtcttatg caataactcct g

31

<210> 2

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed PCR primer including 5' non coding region of p19 gene, HincII, EcoRV and BglII restriction enzyme site to multiply RSV LTR and down stream region of LTR.

<400> 2

gttaaacgata tcagatctgc ttgatccacc gggcgaccag

40

<210> 3

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed PCR primer including 5' region of RSV integrase gene and BamHI restriction enzyme site to multiply RSV integrase gene.

<400> 3  
ttggatccat gcccttgaga gaggctaaag atcttc 36

<210> 4  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including 3' region of RSV integrase gene, polyA signal to multiply RSV integrase gene.

<400> 4  
tttattttaa ctctcggttgg cagcaagggt gtc 33

<210> 5  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including 5' region of U5 and VspI restriction enzyme site to multiply RSV LTR.

<400> 5  
ggcatttaatg aagccttctg cttcattca 29

<210> 6  
<211> 51  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including 3' region of RSV integrase gene, polyA signal, nuclear localization signal of SV40 large T antigen to multiply RSV integrase gene.

<400> 6  
tttattttaa accttcctct tcttcttagg actctcggttgcagcaagggt t 51

<210> 7  
<211> 858  
<212> DNA  
<213> Rous sarcoma virus

<220>  
<221> TATA\_signal  
<222> (84)...(90)

<221> polyA\_signal  
<222> (107)...(112)

<221> TATA\_signal  
<222> (431)...(437)

<221> polyA\_signal  
 <222> (454)...(459)  
 <223> A part of circular form of RSV DNA, tandem repeat  
       LTRs and adjacent non coding region.

<400> 7  
 acgatcgtgc cttatttagga aggcaacaga cgggtctaac acggattgga cgaaccactg 60  
 aattccgcat tgcggagata ttgtatttaa gtgcctagct cgataacaata aaccccattt 120  
 taccattcac cacattggg tgcacctggg ttgatggctg gaccgttcat tccctgacga 180  
 ctacgacac atgcatgaag cagaaggctt cattaatgtt gtcttatgca atactcctgt 240  
 agtcttgaa catgcttatg taacgatgag ttagcaacat gccttacaag gagagaaaag 300  
 gcaccgtgca cgacgattgg tggaaagttaa gttggatgtatcg cgttaggtacg atcgtgcctt 360  
 attaggaagg caacagacgg gtcttaacacg gattggacga accactgaat tccgcatttc 420  
 ggagatattt tatttaagtgtt cctagctcgat tacaataaac gccattttac cattcaccac 480  
 attgggtgtgc acctgggttg atggctggac cgttggattcc ctgacgacta cgagcacatg 540  
 catgaagcag aaggcttcat ttggtgaccgc cgacgtgatc gtttagggat agtggtcggc 600  
 cacagacggc gtggcgatcc tgccctcatc cgtctcgctt attcggggag cggacgatga 660  
 ccctagtaga gggggctgcg gcttaggagg gcagaagctg agtggcgctg gagggagctc 720  
 tactgcaggg agccccagata ccctaccgag aactcagaga gtcgttggaa gacggaaaga 780  
 aagccccacg actgagcggt ccaccccaagg cgtgattccg gttgctctgc gtgaccctgg 840  
 tcgccccgtg gatcaagc 858

<210> 8  
 <211> 972  
 <212> DNA  
 <213> Rous sarcoma virus

<220>  
 <221> CDS  
 <222> (1)...(972)  
 <223> precursor integrase or p36 protein

<221> CDS  
 <222> (1)...(858)  
 <223> mature integrase or p32 protein

<400> 8  
 ccc ttg aga gag gct aaa gat ctt cat acc gct ctc cat att gga ccc 48  
 Pro Leu Arg Glu Ala Lys Asp Leu His Thr Ala Leu His Ile Gly Pro  
   1           5           10           15

cgc gcg cta tcc aaa gcg tgt aat ata tct atg cag cag gct agg gag 96  
 Arg Ala Leu Ser Lys Ala Cys Asn Ile Ser Met Gln Gln Ala Arg Glu  
   20           25           30

gtt gtt cag acc tgc ccg cat tgt aat tca gcc cct gcg ttg gag gcc 144  
 Val Val Gln Thr Cys Pro His Cys Asn Ser Ala Pro Ala Leu Glu Ala  
   35           40           45

gga gta aac cct agg ggt ttg gga ccc cta cag ata tgg cag aca gac 192  
 Gly Val Asn Pro Arg Gly Leu Gly Pro Leu Gln Ile Trp Gln Thr Asp  
   50           55           60

ttt acg ctt gag cct aga atg gcc ccc cgt tcc tgg ctc gct gtt act 240  
 Phe Thr Leu Glu Pro Arg Met Ala Pro Arg Ser Trp Leu Ala Val Thr  
   65           70           75           80

gtg gac acc gcc tca tca gcg ata gtc gta act cag cat ggc cgt gtc		288	
Val Asp Thr Ala Ser Ser Ala Ile Val Val Thr Gln His Gly Arg Val			
85	90	95	
aca tcg gtt gct gta caa cat cat tgg gcc acg gct atc gcc gtt ttg		336	
Thr Ser Val Ala Val Gln His His Trp Ala Thr Ala Ile Ala Val Leu			
100	105	110	
gga aga cca aag gcc ata aaa aca gat aac ggg tcc tgc ttc acg tct		384	
Gly Arg Pro Lys Ala Ile Lys Thr Asp Asn Gly Ser Cys Phe Thr Ser			
115	120	125	
aaa tcc acg cga gag tgg ctc gcg aga tgg ggg ata gca cac acc acc		432	
Lys Ser Thr Arg Glu Trp Leu Ala Arg Trp Gly Ile Ala His Thr Thr			
130	135	140	
ggg att ccg ggt aat tcc cag ggt caa gct atg gta gag cgg gcc aac		480	
Gly Ile Pro Gly Asn Ser Gln Gly Gln Ala Met Val Glu Arg Ala Asn			
145	150	155	160
cgg ctc ctg aaa gat agg atc cgt gtg ctt gcg gag ggg gac ggc ttt		528	
Arg Leu Leu Lys Asp Arg Ile Arg Val Leu Ala Glu Gly Asp Gly Phe			
165	170	175	
atg aaa aga atc ccc acc agc aaa cag ggg gaa cta tta gcc aag gca		576	
Met Lys Arg Ile Pro Thr Ser Lys Gln Gly Glu Leu Leu Ala Lys Ala			
180	185	190	
atg tat gcc ctc aat cac ttt gag cgt ggt gaa aac acg aaa aca ccg		624	
Met Tyr Ala Leu Asn His Phe Glu Arg Gly Glu Asn Thr Lys Thr Pro			
195	200	205	
ata caa aaa cac tgg aga cct acc gtt ctt aca gaa gga ccc ccg gtt		672	
Ile Gln Lys His Trp Arg Pro Thr Val Leu Thr Glu Gly Pro Pro Val			
210	215	220	
aaa ata cga ata gag aca ggg gag tgg gaa aaa gga tgg aac gtg ctg		720	
Lys Ile Arg Ile Glu Thr Gly Glu Trp Glu Lys Gly Trp Asn Val Leu			
225	230	235	240
gtc tgg gga cga ggt tat gcc gct gtg aaa aac agg gac act gat aag		768	
Val Trp Gly Arg Gly Tyr Ala Ala Val Lys Asn Arg Asp Thr Asp Lys			
245	250	255	
gtt att tgg gta ccc tct cga aaa gtt aaa ccg gac atc acc caa aag		816	
Val Ile Trp Val Pro Ser Arg Lys Val Lys Pro Asp Ile Thr Gln Lys			
260	265	270	
gat gag gtg act aag aaa gat gag gcg agc cct ctt ttt gca ggc att		864	
Asp Glu Val Thr Lys Lys Asp Glu Ala Ser Pro Leu Phe Ala Gly Ile			
275	280	285	
tct gac tgg ata ccc tgg gga gac aag caa gaa gga ctc caa gga gaa		912	
Ser Asp Trp Ile Pro Trp Gly Asp Lys Gln Glu Gly Leu Gln Gly Glu			
290	295	300	

acc gct agc aac aag caa gaa aga ccc gga gaa gac acc ctt gct gcc 960  
Thr Ala Ser Asn Lys Gln Glu Arg Pro Gly Glu Asp Thr Leu Ala Ala  
305 310 315 320

aac gag agt taa 972  
Asn Glu Ser \*

<210> 9  
<211> ,21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including 5' region of GFP  
gene and a part of NheI restriction enzyme site to  
multiply GFP gene.

<400> 9  
ctagcgctac cggtcgcccac c 21

<210> 10  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including antisense sequence  
of GFP ORF to multiply a part of GFP gene.

<400> 10  
gttgccgtcc tccttgaagt 20

<210> 11  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including U5 region LTR  
sequence to  
multiply a part of integrated plasmid vector.

<400> 11  
tttgtgtgca cctgggttga t 21

<210> 12  
<211> 36  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Designed PCR primer including 5' end of GFP ORF  
sequence to multiply a part of GFP gene.

<400> 12  
atggtgagca agggcgagga gctgttcacc ggggtg 36

<210> 13  
<211> 20  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Designed PCR primer including a part of GFP ORF  
sequence to multiply a part of GFP gene.

<400> 13  
gtcgagctgg acggcgacgt 20